

Application No. 10/592,982

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AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims

Claims 1-8 (Cancelled).

Claim 9 (Currently Amended): A solar collector, comprising a manifold and a plurality of heat exchangers, wherein each heat exchanger comprises:

a vacuum tube having an inner wall, wherein the vacuum tube is a glass tube;

a fluid-conducting pipe system adapted to hold a fluid, wherein the fluid-conducting pipe system comprises an outer wall connected to the manifold;

at least one heat-conducting element made of metal connecting the inner wall of the vacuum tube to the outer wall of the fluid-conducting pipe system; and

means for collecting and concentrating solar energy provided on a side of the inner wall of the vacuum tube facing away from the at least one heat-conducting element, wherein the outer wall of the fluid-conducting pipe system is a metal wall, wherein each heat-conducting element is a flexible metallic sheet and extends in a spiral shape along a cross-section of the heat exchanger, covers an angle of at least 450 degrees, is attached at the outer wall of the fluid-conducting pipe system and prestressed against the inner wall of the vacuum tube and the fluid-conducting pipe system, such that the outer wall of the fluid-conducting pipe system is centered concentric to the inner wall of the vacuum tube, wherein the vacuum tube is indirectly resiliently connected to the manifold by means of the prestressed heat-conducting elements and the fluid-conducting pipe system.

Claims 10-14 (Cancelled).

Claim 15 (Previously Presented): The heat exchanger as claimed in claim 9, wherein the heat exchanger has two heat-conducting elements, wherein two of the heat-conducting elements are spaced apart from one another in an angular arrangement on an outer wall of the fluid-conducting pipe system over an angular range between 350 to 359 degrees or between 90 and 179 degrees.

Claim 16 (Previously Presented): The heat exchanger as claimed in claim 9, wherein the fluid-conducting pipe system comprises an outer volume and an inner volume operable in a counter-current mode.

Claim 17 (Previously Presented): The heat exchanger as claimed in claim 9, wherein the fluid is a heat-conducting fluid, and the fluid is contained within the inner tube.

Claim 18 (Previously Presented): The heat exchanger as claimed in claim 9, wherein the at least one heat-conducting element is hard-soldered at the outer wall of the fluid-conducting pipe system.

Claim 19 (New): A method for mounting a solar collector having at least one heat exchanger, the method comprising the steps of:

providing a vacuum tube having an inner wall, wherein the vacuum tube is a glass tube, and comprising means for collecting and concentrating solar energy provided on a side of the inner wall of the vacuum tube;

providing a fluid-conducting pipe system adapted to hold a fluid, wherein the fluid-conducting pipe system comprises an outer wall being a metal wall;

providing at least one heat-conducting element made of a flexible metallic sheet having the length of the outer wall of the fluid-conducting pipe system;

attaching the heat-conducting element along its length at the outer wall of the fluid-conducting pipe system;

wrapping the heat-conducting element around the outer wall of the fluid-conducting pipe system;

introducing the wrapped heat-conducting element and fluid-conducting pipe system into the vacuum tube; and

releasing the free end of the heat-conducting element, so that the heat-conducting element connects the inner wall of the vacuum tube to the outer wall of the fluid-conducting pipe system and extends in a spiral shape along a cross-section of the heat exchanger, covering an angle of at least 450 degrees, and is pre-stressed against the inner wall of the vacuum tube and the fluid-conducting pipe system.